

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property  
Organization  
International Bureau



(43) International Publication Date  
18 August 2005 (18.08.2005)

PCT

(10) International Publication Number  
**WO 2005/075462 A1**

- (51) International Patent Classification<sup>7</sup>: **C07D 405/10**, 405/04, 405/14, 257/04 (74) Agent: GRUBB, Philip; Novartis AG, Corporate Intellectual Property, CH-4002 Basel (CH).
- (21) International Application Number: **PCT/EP2005/000978** (81) Designated States (*unless otherwise indicated, for every kind of national protection available*): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.
- (22) International Filing Date: 1 February 2005 (01.02.2005)
- (25) Filing Language: English
- (26) Publication Language: English
- (30) Priority Data: 0402262.0 2 February 2004 (02.02.2004) GB (84) Designated States (*unless otherwise indicated, for every kind of regional protection available*): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).
- (71) Applicant (*for all designated States except AT, US*): NO-VARTIS AG [CH/CH]; Lichtstrasse 35, CH-4056 Basel (CH).
- (71) Applicant (*for AT only*): NOVARTIS PHARMA GMBH [AT/AT]; Brunner Strasse 59, A-1230 Vienna (AT).
- (72) Inventors; and
- (75) Inventors/Applicants (*for US only*): KRELL, Christoph [CH/CH]; Breisacherstrasse 71/2, CH-4057 Basel (CH). HIRT, Hans [CH/CH]; Sonnenweg 23, CH-4153 Reinach (CH).
- Published:  
— with international search report
- For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.*

(54) Title: COUPLING REACTIONS USEFUL IN THE PREPARATION OF (1H-TETRAZOL-5-YL)-BIPHENYL DERIVATIVES

(57) Abstract: The present invention relates to a process for the manufacture of intermediates that may be used for the manufacture of ARBs (also called angiotension II receptor antagonists or AT1 receptor antagonists) comprising as a common structural feature a (1H-tetrazol-5-yl)-biphenyl ring. Form PCT/ISA/210 (continuation of first sheet (3)) (January 2004)

WO 2005/075462 A1